SRAM CELL WITH WELL CONTACTS AND P+ DIFFUSION CROSSING TO GROUND OR N+ DIFFUSION CROSSING TO VDD

ABSTRACT OF THE DISCLOSURE

A low cost SRAM (Static Random Access Memory) cell is disclosed with P well and N well contacts and preferably with a P+ diffusion crossing to ground. The SRAM cell is complete at the M2 metal level and has improved cell passgate leakage, functionality and fabrication yields. The SRAM cell comprises cross coupled pnp pull-up devices P1, P2 and npn pull-down devices N1, N2, with the P1, P2 devices being connected to the power supply VDD, and the N1, N2 devices being coupled through a P+ diffusion region to ground. A first passgate is coupled between a first bitline and the junction of the devices P1 and N1, with its gate coupled to a wordline, and a second passgate is coupled between a second bitline and the junction of devices P2 and N2, with its gate coupled to the wordline.